DEFLECTIONS of TRUSSES
HST38



Year 3
study

Features
- Three Trusses from one kit
- True pin jointed structures.
- Assembly of each truss
- Load can be applied at different joints
- Movable Deflection indicator to all joints.
- Quick & easy connection of supplied weights and hanger
- Dedicated e-book supplied

Description
A set of eighteen truss members with lengths based on the 3:4:5 triangle enables at least three different three bay cantilever trusses to be built with true pin joints. Two 3:4:5 triangles and a 20.5° top member inclination truss can be created. Two springing's are supplied at one end of the truss and the fix to one of the vertical sides of the HST1 Universal Frame and Stand (sold separately). The truss joint deflections are measured using a movable dial gauge mounted on a sub-frame attached to each springing. Having common mounts for the truss and dial gauge sub-frame ensures the deflections are truly relative to the truss springing's. A set of calibrated weights and hanger is supplied for loading the truss.

Related Laws/Applications
- Castiglianos' Theorem.
- Unit Load Method

Learning capabilities
- Comparison of experimental deflections with theoretical values derived from Castigliano's first theorem
- Study of efficiency of different trusses
- Construction of pin jointed trusses

Technical Specification
- Truss A: 720(L) x 180(H) mm
- Truss B: 540(L) x 240(H) mm
- Truss C: 720(L)mm x 20.5° top member inclination
- Truss member section: 25(H) x 10(W) mm
- Digital Dial Gauge: 12.7mm travel; 0.01mm resolution
- Weights set: 5 x 20N, 1 x 50N

Essential Ancillaries

- HST1 (or HST100)

What's in the Box?

- 18 x Numbered Truss Members
- 2 x Long Pin
- 5 x Short Pin
- 1 x Dial Gauge Sub-Frame
- 1 x Alignment tool
- 2 x Bracket Assembly
- 1 x Load hanger
- 1 x Digital Dial Gauge and Data Cable
- 5 x 20N, 1 x 50N weights
- 1 x Tape measure
- Accessories container
- Hex wrench
- Instruction manual
- E-book
- Packing list
- Test sheet

You might also like

- HST16
- HST17
- HST19

Weights & Dimensions

- Weight: 21 kg
- Length: 1300mm
- Width: 150mm
- Height: 500mm

Operational Conditions

- Storage temperature: -10°C to +70°C
- Operating temperature range: +10°C to +50°C
- Operating relative humidity range: 0 to 95%, non condensing

Ordering information

To order this product, please call PA Hilton quoting the following code:
HST38

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